IN THE CLAIMS:

Kindly cancel claims 1, 3, 6, 7, 17, 25 and 26 and rewrite claims 2, 4, 5, 8, 10, 12, 14, 16 and 37 as follows:

1. (Canceled)

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2. (currently amended) The free-cutting tool steel according to Claim ~~1~~ 8, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

3. (Canceled)

4. (currently amended) The free-cutting tool steel according to Claim ~~1~~ 8, wherein Si amount is 2.0 wt% or less, Al amount is 0.1 wt% or less and N amount is 0.040 wt% or less.

5. (currently amended) The free-cutting tool steel according to Claim ~~1~~ 8, further containing at least any one element selected from Ca in an amount of 0.0050 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, B in an amount of 0.010 wt% or less, Nb and/or Ta so that Nb + 0.5Ta amounts to 0.05 wt% or less, and a rare earth metal in an amount of 0.50 wt% or less.

6. (Canceled)

7. (Canceled)

8. (Currently amended) ~~The~~ A free-cutting tool steel ~~according to Claim 1 containing C in an amount of 0.2 to 0.6 wt%;~~ containing Fe as a major component and C in an amount of 0.2 to 0.6 wt%;

containing Ti and/or Zr so that $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

containing at least any one of S, Se and Te so that $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1.0 wt%, and so that $(W_{Ti} + 0.52W_{Zr})/(W_S + 0.4W_{Se} + 0.25W_{Te})$ amounts to 1 to 4, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%);

having dispersed in a texture thereof a machinability improving compound phase within a range from 0.1 to 10% in terms of area ratio in a section;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such metallic element component essentially containing C and also containing at least any one of S, Se and Te; and

essentially containing Cr in an amount of ~~0.3~~ 4.24 to 7 wt%; and

containing at least any one element selected from Mn in an amount of 2.0 wt% or less, Ni in an amount of 2.5 wt% or less, Mo and/or W so that Mo + 0.5W amounts to 4.0 wt% or less, V in an amount of 2 wt% or less, and Co in an amount of 5.0 wt% or less.

9. (Original) The free-cutting tool steel according to Claim 8 used as a source material for hot forming die.

10. (Currently amended) ~~The~~ A free-cutting tool steel ~~according to Claim 1 containing C in an amount of 0.3 to 1.8 wt%; and~~ containing Fe as a major component and C in an amount of 0.51 to 1.8 wt%;

containing Ti and/or Zr so that $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

containing at least any one of S, Se and Te so that $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1.0 wt%, and so that $(W_{Ti} + 0.52W_{Zr})/(W_S + 0.4W_{Se} + 0.25W_{Te})$

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amounts to 1 to 4, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%);

having dispersed in a texture thereof a machinability improving compound phase within a range from 0.1 to 10% in terms of area ratio in a section;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such metallic element component essentially containing C and also containing at least any one of S, Se and Te; and

containing at least any one element selected from Cr in an amount of 4 wt% or less, Mn in an amount of 2.0 wt% or less, Ni in an amount of 2.5 wt% or less, Mo and/or W so that Mo + 0.5W amounts to 2.5 wt% or less, V in an amount of 1 wt% or less, and Co in an amount of 1.0 wt% or less.

11. (Original) The free-cutting tool steel according to Claim 10 used as a source material for cold forming die, cutting tool or impact-resistant tool.

12. (currently amended) A free-cutting tool steel ~~according to Claim 1 containing C in an amount of 0.5 to 2.5 wt%;~~ containing Fe as a major component and C in an amount of 0.5 to 2.5 wt%;

containing Ti and/or Zr so that $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

containing at least any one of S, Se and Te so that $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1.0 wt%, and so that $(W_{Ti} + 0.52W_{Zr})/(W_S + 0.4W_{Se} + 0.25W_{Te})$ amounts to 1 to 4, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%);

having dispersed in a texture thereof a machinability improving compound phase within a range from 0.1 to 10% in terms of area ratio in a section;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such

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metallic element component essentially containing C and also containing at least any one of S, Se and Te;

essentially containing Cr in an amount of 4 to 17 wt%; and

containing at least any one element selected from Mn in an amount of 2.0 wt% or less, Ni in an amount of 1.0 wt% or less, Mo and/or W so that Mo + 0.5W amounts to 1.5 wt% or less, V in an amount of 1 wt% or less, and Co in an amount of 1.0 wt% or less.

13. (Original) The free-cutting tool steel according to Claim 12 used as a source material for cold forming die.

14.(Currently amended) ~~The~~ A free-cutting tool steel ~~according to Claim 1 containing C in an amount of 0.5 to 2.0 wt%;~~ containing Fe as a major component and C in an amount of 0.5 to 2.0 wt%;

containing Ti and/or Zr so that $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

containing at least any one of S, Se and Te so that $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1.0 wt%, and so that $(W_{Ti} + 0.52W_{Zr})/(W_S + 0.4W_{Se} + 0.25W_{Te})$ amounts to 1 to 4, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%);

having dispersed in a texture thereof a machinability improving compound phase within a range from 0.1 to 10% in terms of area ratio in a section;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such metallic element component essentially containing C and also containing at least any one of S, Se and Te; and

containing at least any three elements selected from Cr as an essential element in an amount of 3 to 7 wt%, Mo and/or W as an essential element so that Mo + 0.5W amounts to 4 to 12 wt%, V as an essential element in an amount of 0.5 to 6.0 wt%, Mn in an amount of 2.0 wt% or less, Ni in an amount of 1.0 wt% or less, and Co in an amount of 15.0 wt% or less.

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15. (Original) The free-cutting tool steel according to Claim 14 used as a source material for cutting tool, cold forming die or hot forming die.

16. (Currently amended) A free-cutting tool steel containing Fe as a major component and C in an amount of 0.001 to ~~0.6~~ 0.4 wt%; and

further containing Ni in an amount of 1 to 5 wt% ~~6 wt% or less,~~ Cu in an amount of 0.5 to 5 wt% ~~or less~~, ~~and~~ Al in an amount of 0.5 to 3 wt% ~~or less~~, and Cr in an amount of less than 10 wt%;

wherein such tool steel further contains:

Ti and/or Zr so that X (wt%) = $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

at least any one of S, Se and Te so that Y (wt%) = $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1 wt%, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%); and

having dispersed in a texture thereof a machinability improving compound phase;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such metallic element component essentially containing C and also containing at least any one of S, Se and Te; and

the values X and Y are defined so as to satisfy a relation of $1 \leq X/Y \leq 4$.

17. (Canceled)

18. (Currently amended) The free-cutting tool steel according to Claim 16, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

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19. (Original) The free-cutting tool steel according to Claim 16 having a ratio of Charpy impact values I_T/I_L of 0.3 or above, where

I_T is a Charpy impact value of a T-directional test piece and I_L is a Charpy impact value of an L-directional test piece:

said impact values being obtained in Charpy impact test specified by JIS Z2242; and

said T-directional test piece and L-directional test piece being fabricated as No. 3 test pieces specified in JIS Z2202 by notching a forged-and-rolled product of such tool steel along the directions parallel to and normal to the forging-and-rolling direction, respectively.

20. (Original) The free-cutting tool steel according to Claim 16, wherein said machinability improving compound phase observed in a polished surface of such tool steel has an area ratio of 0.1 to 10%.

21. (Original) The free-cutting tool steel according to Claim 16 satisfying relations of

$0.2X \leq Y \leq X$; and

$0.07X \leq W_C \leq 0.75X$

where W_C represents C content (wt%).

22. (Currently amended) The free-cutting tool steel according to Claim 16 ~~containing Cr in an amount of 22 wt% or less; and~~ further containing at least any one element selected from Mo and/or W so that $W_{Mo} + 0.5W_W$ amounts to 4 wt% or less, where W_{Mo} represents Mo content (wt%) and W_W represents W content (wt%), Mn in an amount of 3 wt% or less, Co in an amount of 2 wt% or less, Nb in an amount of 1 wt% or less and V in an amount of 1 wt% or less.

23. (Original) The free-cutting tool steel according to Claim 16 wherein Si amount is 2 wt% or less, N amount is 0.04 wt% or less, and O amount is 0.03 wt% or less.

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24. (Currently amended) The free-cutting tool steel according to Claim 16 further containing at least any one element selected from Ca in an amount of 0.005 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, Ta in an amount of 0.05 wt% or less, B in an amount of 0.01 wt% or less, and a rare earth metal element in an amount of 0.5 wt% or less.

25. (Canceled)

26. (Canceled)

27. (Original) The free-cutting tool steel according to Claim 16 used as a source material for die for molding plastics.

Kindly add new claims 28-45 as follows:

28. (New) The free-cutting tool steel according to Claim 10, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

29. (New) The free-cutting tool steel according to Claim 10 wherein Si amount is 2.0 wt% or less, Al amount is 0.1 wt% or less and N amount is 0.040 wt% or less.

30. (New) The free-cutting tool steel according to Claim 10 further containing at least any one element selected from Ca in an amount of 0.0050 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, B in an amount of 0.010 wt% or less, Nb and/or Ta so that Nb + 0.5Ta amounts to 0.05 wt% or less, and a rare earth

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metal in an amount of 0.50 wt% or less.

31. (New) The free-cutting tool steel according to Claim 12, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

32. (New) The free-cutting tool steel according to Claim 12 wherein Si amount is 2.0 wt% or less, Al amount is 0.1 wt% or less and N amount is 0.040 wt% or less.

33. (New) The free-cutting tool steel according to Claim 12 further containing at least any one element selected from Ca in an amount of 0.0050 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, B in an amount of 0.010 wt% or less, Nb and/or Ta so that Nb + 0.5Ta amounts to 0.05 wt% or less, and a rare earth metal in an amount of 0.50 wt% or less.

34. (New) The free-cutting tool steel according to Claim 14, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

35. (New) The free-cutting tool steel according to Claim 14 wherein Si amount is 2.0 wt% or less, Al amount is 0.1 wt% or less and N amount is 0.040 wt% or less.

36. (New) The free-cutting tool steel according to Claim 14 further containing at least any one element selected from Ca in an amount of 0.0050 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, B in an amount of 0.010 wt% or less, Nb and/or Ta so that Nb + 0.5Ta amounts to 0.05 wt% or less, and a rare earth metal in an amount of 0.50 wt% or less.

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37. (New) A free-cutting tool steel containing Fe as a major component and C in an amount of 0.033 to 0.6 wt%; and

further containing Ni in an amount of 6 wt% or less, Cu in an amount of 5 wt% or less, Al in an amount of 3 wt% or less and Cr in an amount of 10 to 22 wt% or less;

wherein such tool steel further contains:

Ti and/or Zr so that X (wt%) = $W_{Ti} + 0.52W_{Zr}$ amounts to 0.03 to 3.5 wt%, where W_{Ti} represents Ti content (wt%) and W_{Zr} represents Zr content (wt%);

at least any one of S, Se and Te so that Y (wt%) = $W_S + 0.4W_{Se} + 0.25W_{Te}$ amounts to 0.01 to 1 wt%, where W_S represents S content (wt%), W_{Se} represents Se content (wt%) and W_{Te} represents Te content (wt%); and

having dispersed in a texture thereof a machinability improving compound phase;

said machinability improving compound phase comprising a metallic element component having Ti and/or Zr as major components, and a binding component for such metallic element component essentially containing C and also containing at least any one of S, Se and Te; and

the values X and Y are defined so as to satisfy a relation of $1 \leq X/Y \leq 4$.

38. (New) The free-cutting tool steel according to Claim 37, wherein said machinability improving compound phase mainly comprises a component phase expressed by a composition formula $M_4Q_2C_2$ (where M represents the metallic element component mainly comprises Ti and/or Zr, and Q represents at least any one of S, Se and Te).

39. (New) The free-cutting tool steel according to Claim 37 having a ratio of Charpy impact values I_T/I_L of 0.3 or above, where

I_T is a Charpy impact value of a T-directional test piece and I_L is a Charpy impact value of an L-directional test piece:

said impact values being obtained in Charpy impact test specified by JIS Z2242; and

said T-directional test piece and L-directional test piece being fabricated as No. 3 test pieces specified in JIS Z2202 by notching a forged-and-rolled product of such tool

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steel along the directions parallel to and normal to the forging-and-rolling direction, respectively.

40. (New) The free-cutting tool steel according to Claim 37, wherein said machinability improving compound phase observed in a polished surface of such tool steel has an area ratio of 0.1 to 10%.

41. (New) The free-cutting tool steel according to Claim 37 satisfying relations of

$0.2X \leq Y \leq X$; and

$0.07X \leq W_C \leq 0.75X$

where W_C represents C content (wt%).

42. (New) The free-cutting tool steel according to Claim 37 further containing at least any one element selected from Mo and/or W so that $W_{Mo} + 0.5W_W$ amounts to 4 wt% or less, where W_{Mo} represents Mo content (wt%) and W_W represents W content (wt%), Mn in an amount of 3 wt% or less, Co in an amount of 2 wt% or less, Nb in an amount of 1 wt% or less and V in an amount of 1 wt% or less.

43. (New) The free-cutting tool steel according to Claim 37 wherein Si amount is 2 wt% or less, N amount is 0.04 wt% or less, and O amount is 0.03 wt% or less.

44. (New) The free-cutting tool steel according to Claim 37 further containing at least any one element selected from Ca in an amount of 0.005 wt% or less, Pb in an amount of 0.2 wt% or less, Bi in an amount of 0.2 wt% or less, Ta in an amount of 0.05 wt% or less, B in an amount of 0.01 wt% or less, and a rare earth metal element in an amount of 0.5 wt% or less.

45. (New) The free-cutting tool steel according to Claim 37 used as a source material for die for molding plastics.

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